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# PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

001.00001

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on June 7, 2006  
Signature Daniel Fisher

Typed or printed name Daniel FISHER

Application Number

09/696,956

Filed

Oct. 27, 2000

First Named Inventor

Daniel FISHER

Art Unit

2685

Examiner

Charles CHOW

✓ Applicant requests review of the ~~final~~ rejection in the above-identified application. No amendments are being filed with this request. After 5 or 6 prior Office Actions.

✓ This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the



applicant/inventor.



assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)



attorney or agent of record.  
Registration number \_\_\_\_\_



attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

Daniel E. Fisher

Signature

Daniel E. FISHER

Typed or printed name

Telephone number \_\_\_\_\_

Date

+ 3 other Forms ←

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.



\*Total of \_\_\_\_\_ forms are submitted. 5 sheets for Pre-Appeal Brief Request for Review

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**Attorney Docket No.: 001.00001**

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant: Daniel FISHER**

**Serial No.: 09/696,956**

**Examiner: Charles Chow**

**Filed: October 27, 2000**

**Group Art Unit: 2685**

**For: Angle Rate Interferometer  
And Passive Ranger**

**Mail Stop AF**

**Commissioner of Patents**

**P.O. Box 1450**

**Alexandria, VA 22313-1450**

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**Sir:**

Responsive to the March 9, 2006 Office Action, please reconsider the application in light of the following remarks and the applicable patent law.

A. The Office Action erroneously rejects claim 1 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 3,816,834 to Wilson view of U.S. Patent No. 4,893,316 to Janc et al. The Office Action admits that Wilson fails to teach (1) a processor in low frequency oscillator 18, and (2) that the reference signal is characterized by a constant predetermined frequency. However, the Office Action asserts that FIG. 6 of Janc et al. discloses a digital frequency source 626 for replacing oscillator 18 of Wilson where the frequency is "characterized by a constant predetermined frequency" as specified in claim 1.

Even if, *arguendo*, FIG. 6 of Janc et al. depicts a direct digital synthesizer (DDS), the art applied fails to suggest a motivation to replace Wilson's low frequency oscillator 18 with Janc's DDS. The Office Action asserts that the motivation is "to generate accurate, stable, local oscillator signals" (page 3, line 7). However, the legal standard is that motivation can only be found where the evidence shows a teaching or suggestion of the desirability of the specific modification or combination. "[T]here must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant" (emphasis added), *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed Cir. 1998). "[P]articular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention would have selected these components for combination in the manner claimed," *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). Although, Janc et al. discloses "Referring now to FIG. 6, digital quadrature LO 626 is depicted in block diagram form. Implementation of a DZISS hinges on the ability to generate accurate and stable discrete time representations of sine and cosine waveforms for the quadrature mixing process" (see column 11, lines 1-5), the art applied fails to suggest a motivation to replace Wilson's low frequency oscillator 18 with Janc's DDS.

**B.** The Office Action erroneously rejects claim 2 under 35 U.S.C. § 103(a) as unpatentable over Wilson in view of U.S. Patent No. 5,416,446 to Holler et al. and further in view of U.S. Patent No. 6,268,829 to Weckstrom.

1. Although the Office Action applies “Wilson in view of Holler, as applied to claim 1 above,” Holler was not applied to the rejection of claim 1. The Office Action admits that Wilson fails to teach (1) a processor in low frequency oscillator 18, and (2) that the reference signal is characterized by a constant predetermined frequency. Holler and Weckstrom do not teach this feature. Thus, the art applied to the rejection of claim 2 does not disclose a processor in low frequency oscillator 18 or that the reference signal is characterized by a constant frequency as specified in claim 1 and contained in all claims dependent thereon.

2. The Office Action admits that Wilson and Holler fail to teach the further features of claim 2, i.e., “the third frequency converter provides an information signal that is coupled to the processor.” However, the Office Action asserts that Weckstrom’s third frequency converter 68 provides an information signal to DSP 198. Even if, *arguendo*, the art applied to this rejection disclosed some sufficient motivation, claim 2 specifies that the “information signal” “is coupled to the processor” (emphasis added), i.e., the same processor that provides the reference signal as specified in claim 1. The art applied to the rejection of claim 2 fails to disclose even a processor that provides the reference signal characterized by a “constant predetermined frequency” as specified in claim 1, and certainly fails to disclose a processor that both provides the reference signal and receives the information signal as specified in claim 2.

3. The Office Action asserts that the motivation to modify Wilson in view of Holler to include Weckstrom’s DSP is “in order to locate mobile station.” For at least the reasons discussed above with respect to the law governing motivation to modify, even if the combination of art proposed in the Office Action were to disclose a processor that both provides the reference signal and receives the information signal, the art applied to the rejection of claim 2 fails to establish motivation to make the modifications to Wilson to achieve the specific structure of claim 2.

**C.** The Office Action erroneously rejects claims 9 and 27 under 35 U.S.C. § 103(a) as unpatentable over Weckstrom in view of Janc et al. The Office Action asserts that Weckstrom depicts the rf bridge as first mixer 60, second mixer 68, and third mixer 78 and associated circuitry in FIG. 8 and a processor in the form of DSP 198 coupled to the rf bridge to receive an information signal. The Office Action admits that “Weckstrom fails to teach a digital frequency source to generate a reference signal based on a signal from a clock source; the using of the signal from the clock source, and the detection of information signal based on, or using, the signal from the clock source.” Then, the Office Action proposes to modify Weckstrom to use the DDS of Janc et al. to provide local oscillator signals, presumably replacing Weckstrom’s local oscillator 64 with Janc’s DDS. The Office Action asserts that the motivation to use Janc’s DDS in this way is “in order to generate accurate local oscillator signals for the mixing process.”

1. Even if, *arguendo*, the art applied to this rejection disclosed some sufficient motivation to make the proposed modification outlined above, claims 9 and 27 specify (1) that the processor includes both the digital frequency source and the circuitry to detect a frequency difference from the information signal, (2) that the digital frequency source generates the reference signal based on a signal from a clock source, and (3) that the circuitry to detect a frequency difference from the information signal detects based on the signal from the clock source, i.e., the same signal from the same clock source used by the digital frequency source. Even after replacing Weckstrom's oscillator 64 with Janc's DDS, the art applied to this rejection fails to establish that both the oscillator 64 (now Janc's DDS) and Weckstrom's DSP 198 are both driven by the same signal from the same clock source.

2. Furthermore, for at least the reasons discussed above with respect to the law governing motivation to modify, even if the combination of art proposed in the Office Action were to disclose that both the oscillator 64 (now Janc's DDS) and Weckstrom's DSP 198 are both driven by the same signal from the same clock source, the art applied to the rejection of claims 9 and 27 fails to establish motivation to make the modifications to Weckstrom to achieve the specific structure of claims 9 and 27.

D. The Office Action erroneously rejects claims 10 and 26 under 35 U.S.C. § 103(a) as unpatentable over Weckstrom in view of Janc et al. as applied to claim 9, and further in view of U.S. Patent No. 4,876,549 to Masheff. The Office Action admits that Weckstrom and Janc [sic.] fails to teach the Fourier transform.

1. For at least the reasons discussed above with respect to claim 9, Weckstrom in view of Janc et al. does not disclose all the features of claims 10 and 26. Further, Masheff does not disclose the features specified in claim 9 that are absent from Weckstrom in view of Janc. Since claims 10 and 26 are dependent on claim 9, the art applied to the rejection of claims 10 and 26 does not disclose the structures specified in claims 10 and 26.

2. The Office Action asserts that Masheff teaches "the circuitry to detect includes a first Fourier transform 56 having a first center frequency" and "a second Fourier transform 58 having a second center frequency, the first center frequency being different than the second center frequency." To the contrary, Masheff does not disclose Fourier transforms having different center frequencies.

3. The Office Action asserts that "one of ordinary skill in the art at the time of the invention [would be motivated] to upgrade Wilson with Masheff's first, second Fourier transform." First, Wilson has not been applied to the rejection of claims 10 and 26. Second, the Office Action asserts that the motivation for this modification, presumably modifying Weckstrom and Janc, so that the claimed "circuitry to detect" includes Masheff's first and second Fourier transforms is "in order to accurately determine the angle of arrival digitally [sic.] from the transformed signals." For at least the reasons discussed above with respect to the law governing motivation to modify, the art applied to the rejection of claims 10 and 26 fails to establish motivation to make the modifications necessary to achieve the specific structures of claims 10 and 26.

E. The Office Action erroneously rejects claim 17, 20, 23 and 28 under 35 U.S.C. § 103(a) as unpatentable over Wilson view of Masheff. The Office Action admits that “Wilson fails to teach the forming a first Fourier transform of the information signal at the first center frequency; and forming a second Fourier transform of the information signal at the second center frequency, the second center frequency being different than the first center frequency.”

1. However, the Office Action asserts that Masheff teaches these features. To the contrary, Masheff does not disclose Fourier transforms having different center frequencies.

2. The Office Action asserts that “one of ordinary skill in the art at the time of the invention [would be motivated] to upgrade Wilson with Masheff’s first, second Fourier transform” “in order to accurately determine the angle of arrival digitally [sic.] from the transformed signals.” For at least the reasons discussed above with respect to the law governing motivation to modify, the art applied to the rejection of claim 17 fails to establish motivation to make the modifications to the method of Wilson necessary to achieve the specific method of claim 17 and claims 20, 23 and 28 dependent thereon.

3. In addition to the above, as to claims 20 and 23, the Office Action asserts that “Weckstrom teaches a step of determining a range.” However, the rejection of claims 20 and 23 is based on Wilson in view of Masheff, not Weckstrom.

4. In addition to the above, as to claim 28, the Office Action asserts that “Masheff teaches the wherein the first center frequency differs from the second center frequency by a predetermined frequency difference [the receiver channel frequency difference, abstract, col. 5, lines 31-35].” To the contrary, Masheff does not disclose, teach or suggest that the first center frequency differs from the second center frequency by a predetermined frequency difference.

F. 1. The Office Action erroneously rejects claim 24 under 35 U.S.C. § 103(a) as unpatentable over Wilson view of Janc et al. as applied to claim 1, and further in view of U.S. Patent No. 3,680,124 to Stone et al. The Office Action admits that Wilson and Janc fail to teach the additional features of claim 24, i.e., “wherein the reference signal is coupled to only one of the first and second frequency converters.” To the contrary, in Stone et al., reference signal 35 is not only coupled directly to mixer 31, but also coupled indirectly to mixer 33 through phase shifter 47. The signal from oscillator 37 is coupled to both mixers 31 and 33.

2. As discussed above with respect to the rejection of claim 1, Wilson and Janc et al. fail to suggest a motivation to replace Wilson’s low frequency oscillator 18 with Janc’s DDS. Stone et al. also fails to suggest a motivation to replace Wilson’s low frequency oscillator 18 with Janc’s DDS.

3. For at least the reasons discussed above with respect to the rejection of claim 1 and as to the law governing motivation to modify, even if the combination of art proposed in the Office Action were to disclose that “the reference signal is coupled to only one of the first and second frequency converters,” the art applied to the rejection of claim 24 fails to establish motivation to make the specific modifications

to Wilson to achieve the structure of claim 24. The Office Action asserts that the motivation for modifying Wilson and Janc according to Stone et al. is "in order to separate the frequency into different mixers by a desired amount." However, even if this motivation were disclosed in the art applied, the art fails to establish a motivation for making the specific modifications to Wilson to achieve the structure of claim 24.

G. The Office Action erroneously rejects claim 25 under 35 U.S.C. § 103(a) as unpatentable over Stone et al. in view of Weckstrom. The Office Action admits that "Stone fails to teach an rf bridge coupled to the processor to receive [sic.] reference [signal] from the processor; the third frequency converter coupled to the output of the first and second frequency converters."

1. The Office Action asserts that "Weckstrom teaches these features, the processor DSP 198 coupled to the down converter 78, 60 of the rf bridge [78, 60, 68 & associated circuitry], for receiving reference signal from PLL 199, crystal 66 via control from processor DSP 198." In essence, the Office Action asserts that the control signal from DSP 198 to PLL 199 reads on the claimed reference signal. To the contrary, such an interpretation would not satisfy the claim 25 limitation that "the reference signal [is] coupled to only one of the first and second frequency converters."

2. The Office Action also asserts that the motivation for modifying Stone according to Weckstrom is "in order to control the channel for down conversion." For at least the reasons discussed above with respect to the law governing motivation to modify, even if the combination of art proposed in the Office Action were to disclose "the reference signal being coupled to only one of the first and second frequency converters" as specified in claim 25, the art applied to the rejection of claim 25 fails to establish motivation to make the modifications to Stone et al. to achieve the specific structure of claim 25.

Respectfully submitted,



Daniel E. Fisher

Telephone: 703-542-2399  
Address 40452 Hickory Ridge Place  
Aldie, VA 20105

6-7-06